Applicant: Bailey, et al. Attorney's Docket No.: 21554-0004001 / PA51-22-02

Serial No.: 10/666,527

Filed: September 18, 2003

Page : 2 of 11

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

- 1 (previously presented) An imprint template for imprint lithography that comprises:
- alignment marks embedded in an embedding material included in bulk material of the imprint template, wherein the embedding material surrounds the alignment marks.
- 2. (original) The imprint template of claim 1 wherein one or more of the alignment marks are spaced one or more predetermined distances from a surface of the imprint template.
- 1 3. (original) The imprint template of claim 1 wherein the one or more predetermined
- distances is sufficient to enable predetermined radiation to irradiate predetermined regions
- disposed under a surface of the imprint template.
- 1 4. (previously presented) The imprint template of claim 1 wherein the alignment marks are
- 2 fabricated from a material whose index of refraction is different from that of at least the
- 3 embedding material.

1

- 1 5. (previously presented) The imprint template of claim 1 wherein the alignment marks are
- 2 fabricated from a material whose index of refraction is different from that of at least the
- 3 embedding material and that of a material into which an imprint is made.
 - 6. (original) The imprint template of claim 1 wherein the alignment marks are metal.

Applicant: Bailey, et al. Attorney's Docket No.: 21554-0004001 / PA51-22-02

Serial No.: 10/666,527

Filed: September 18, 2003

Page : 3 of 11

7. (previously presented) The imprint template of claim 1 wherein a material disposed

2 between the alignments marks and a surface of the imprint template is the same material as the

embedding material and is the same material used to form other portions of the bulk material of

4 the imprint template.

3

- 1 8. (original) The imprint template of claim 1 wherein the surface of the imprint template
- 2 includes a release layer.
- 1 9. (original) The imprint template of claim 8 wherein the release layer is a fluorocarbon
- 2 release layer.
- 1 10. (original) The imprint template of claim 8 wherein the release layer is a covalently
- 2 bonded, thin, fluorocarbon film.
- 1 11. (previously presented) An imprint template for imprint lithography that comprises:
- 2 alignment marks embedded in an embedding material included in bulk material of the
- 3 imprint template, wherein said embedding material surrounds said alignment marks, with said
- 4 bulk material being transparent to radiation having a predetermined wavelength and said
 - alignment marks being spaced one or more predetermined distances from a surface of the imprint
- 6 template.

5

- 1 12. (original) The imprint template of claim 11 wherein the one or more predetermined
- distances is sufficient to enable said radiation to irradiate predetermined regions in
- 3 superimposition with the imprint template.
- 1 13. (previously presented) The imprint template of claim 12 wherein the alignment marks are
- 2 fabricated from a material whose index of refraction is different from that of at least the
- 3 embedding material.

Applicant: Bailey, et al. Attorney's Docket No.: 21554-0004001 / PA51-22-02

Serial No.: 10/666,527

Filed: September 18, 2003

Page : 4 of 11

1 14. (original) The imprint template of claim 13 wherein the index of refraction of the material

- differs from an index of refraction a layer into which an imprint is made.
- 1 15. (original) The imprint template of claim 14 wherein the alignment marks are metal.
- 1 16. (original) The imprint template of claim 15 wherein the surface of the imprint template
- 2 includes a release layer.
- 1 17. (original) The imprint template of claim 16 wherein the release layer is a fluorocarbon
- 2 release layer.
- 1 18. (original) The imprint template of claim 16 wherein the release layer is a covalently
- 2 bonded, thin, fluorocarbon film.
- 1 19. (previously presented) A method for fabricating an imprint template for imprint
- 2 lithography that comprises steps of: depositing a mask on an imprint template;
- 3 etching alignment features through the mask into the imprint template;
- 4 depositing alignment marks into the alignment features;
- over covering the alignment marks with a same material used to fabricate the imprint
- 6 template; and
- 7 removing the mask.
- 1 20. (previously presented) The method of claim 19 which further comprises treating the
- 2 surface of the imprint template.